

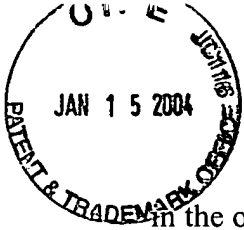
Remarks

The Applicants note with appreciation the withdrawal of the rejections based on the prior art.

The sole rejection is the 35 U.S.C. §112 rejections of Claims 1 – 44 concerning the limitation “non-shrinkable.” The Applicants have accordingly removed that term from each of independent Claims 1, 3, 24 and 26 in accordance with the Examiner’s helpful suggestion. However, the Applicants have substituted in the term “heat set” in each of those independent claims as a replacement for the previously objectionable “non-shrinkable” terminology. The Applicants invite the Examiner’s attention to the second to the last line of page 3 of the Specification wherein “heat set” is specifically set forth. Accordingly, the new terminology is fully supported and no new matter has been added.

The fact that the polyolefin polymer layer is “heat set” is what makes the polyolefin polymer layer non-shrinkable. In fact, the heat setting step, after orientation is completed, is the step that minimizes heat shrinkage of the freshly oriented film. Typically, the invention employs two oven zones immediately after the stretching zones to heat set the freshly oriented film. The temperature settings of those zones are similar to the stretching zone temperatures. The function of the heat setting zones is to slowly heat the oriented film and relax the oriented polymer chains, thereby relieving internal residual stresses in the films. This stabilizes the film’s dimensional proportions and minimizes dimensional shrinkage of the film in both the machine and transverse directions. Thus, in using the term “heat set,” the Applicants apply heat to “set” the film in stable form.

Stated differently, the Applicants “pre-shrink” the film such that further shrinkage of the film is minimized prior to other downstream processing of the film such as winding into rolls, slitting, metalizing and the like. As a consequence, the resulting film has little, if any, film shrinkage as used



in the oriented film printing, coating or laminating processes. In other words, the heat set film is non-shrinkable.

This is sharply contrasted to the prior art such as set forth in Ristey, which provides a shrinkable film that is processed quite differently. Instead of slowly heating the film after orientation as is the case in the invention, the Ristey film is "rapidly cooled." In that regard, Ristey repeatedly teaches such cooling throughout their Specification. The Applicants specifically invite the Examiner's attention to Column 2 at lines 38 – 40; Column 3, lines 42 – 47; and Column 4, lines 39 – 45. It is therefore quite clear that Ristey teaches orientation, followed by cooling. This process produces an oriented film with high residual internal stresses within the film. This is the opposite of the claimed invention. As a consequence, one of ordinary skill in the art would be led away from the invention by reference to Ristey, whether taken alone or collectively with Nagai.

In light of the foregoing, the Applicants respectfully submit that the entire Application is now in condition for allowance, which is respectfully requested.

Respectfully submitted,

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